



Docket No.: 2345C(225436)  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Joseph A. Sorge et al.

Application No.: 10/734,563

Confirmation No.: 2401

Filed: December 12, 2003

Art Unit: 1652

For: DNA POLYMERASE COMPOSITIONS FOR  
QUANTITATIVE PCR AND METHODS  
THEREOF

Examiner: R. G. Hutson

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO RESTRICTION REQUIREMENT**

Dear Sir:

In response to the Restriction Requirement dated June 23, 2006, Applicants elect Group I, Claims 1-7, 8-10, 12-16 and 17-21, for prosecution on the merits, with traverse.

Applicants also elect SEQ ID NO: 89 encoding Pfu polymerase, for prosecution on the merits, with traverse. Applicants submit that each of SEQ ID Nos: 83-108 and the corresponding DNA polymerases are clearly related. Each of the DNA polymerases encoded by SEQ ID Nos: 83-108 are archaeal DNA polymerases that share the common features of :

- 1) high thermostability;
- 2) absence of 5'-3' exonuclease activity;
- 3) presence of 3'-5' exonuclease (proofreading) activity;
- 4) uracil sensitivity;

- 5) a high level of amino acid sequence homology to the Family B class of polymerases;
- 6) the presence of amino acid sequence motifs and residues unique to archaeal DNA polymerases; and
- 7) the presence of a uracil binding motif.

Applicants submit that in view of the relatedness of the archaeal DNA polymerases comprising an amino acid selected from the SEQ ID Nos. 83-108, Applicants should not be required to elect one of SEQ ID NO: 83-108.

Applicants submit further that examination of all of the polymerases encoded by SEQ ID NOs. 83-108 would not impose an undue burden on the Examiner.

Dated: October 23, 2006

Respectfully submitted,

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